

# CHAPTER 1

## PURPOSE OF AND NEED FOR ACTION

### 1.0 INTRODUCTION

Fidelity Exploration & Production Company (Fidelity) proposes infield development of coal bed natural gas (CBNG) in its Tongue River-Dry Creek Project area (Dry Creek POD). The project area is located within the CX Field (approved by the Montana Board of Oil & Gas Conservation), Big Horn County of southeastern Montana, T. 9 S., R. 39 and 40 E., (Map 1.3-1 and Map 1.3-2). Fidelity's proposal includes the development, operation, and reclamation of CBNG wells and various facilities on leased lands (surface and /or oil and gas mineral estate) in the Dry Creek POD. The proposed project is located on private and BLM administered surface. A more detailed description of the Plan of Development and Proposed Action is found in Chapter 2.

### 1.1 PURPOSE AND NEED STATEMENT

The purpose of the Proposed Action is to develop the CBNG resources that may be found in coal seams on federal leases within the project area. The need for Fidelity's Plan of Development is to ensure CBNG development of its leases occurs in an orderly, efficient and environmentally responsible manner that provides measures to protect the environment and surface owner assets.

### 1.2 CONFORMANCE WITH AND RELATIONSHIP TO THE APPLICABLE LAND USE PLAN

BLM considers this proposed action under the requirements of the Mineral Leasing Act (MLA), the Federal Land Policy Management Act (FLPMA) and the BLM regulations at 43 CFR 3160 and other applicable laws and regulations.

As required by 43 CFR 1610.5, the Proposed Action is in conformance with the terms and the conditions of the BLM 1984 *Powder River Resource Management Plan* (RMP), as amended by the Miles City District Oil and Gas FEIS/Amendment (BLM, 1994) and the *Montana Statewide Oil and Gas FEIS/Amendment of the Powder River and Billings RMPs* (BLM, 2003).

This site-specific EA tiers to and incorporates by reference the information and analyses contained in the *Montana Statewide Oil and Gas Final*

*Environmental Impact Statement and Amendment of the Powder River and Billings RMPs* (MT FEIS) approved April 30, 2003, pursuant to 40 CFR 1508.28 and 1502.21. This project EA addresses site-specific resources and/or effects that are not covered in the MT FEIS.

### 1.2.1 Other Relevant Documents

- Final Environmental Impact Statement and Proposed Plan Amendment for the Powder River Basin Oil and Gas Project (WY FEIS), April, 2003
- EA's prepared by DNRC for beneficial use of produced water at the Spring Creek and Decker Coal Mines, December, 2002 and June, 2003 respectively
- EA prepared by BLM for the Fidelity Badger Hills Plan of Development, approved February 9, 2004
- EA prepared by BLM, MDEQ and MBOGC for the Powder River Gas – Coal Creek Plan of Development, approved November 19, 2004
- EA prepared by MBOGC for the Dry Creek Plan of Development, approved May 19, 2004
- EA prepared by DNRC for the Dry Creek POD-CX Field, January 7, 2004; approved by the Board of Land Commissioners February 17, 2004
- EA prepared by MDEQ for the MPDES permit for discharge of produced water into the Tongue River, approved June, 2000
- EA's prepared by MDEQ for the Montana Air Quality Permit's (MAQP); #3036-02 issued final on April 19, 2001; MAQP #3037-03 issued final on September 27, 2003; MAQP #3118-00 issued final on August 10, 2000; MAQP #3122-00 issued final on August 10, 2000; MAQP #3141-00 issued final on February 24, 2001; and MAQP #3250-00 issued final on July 16, 2003.

### 1.3 DECISIONS TO BE MADE

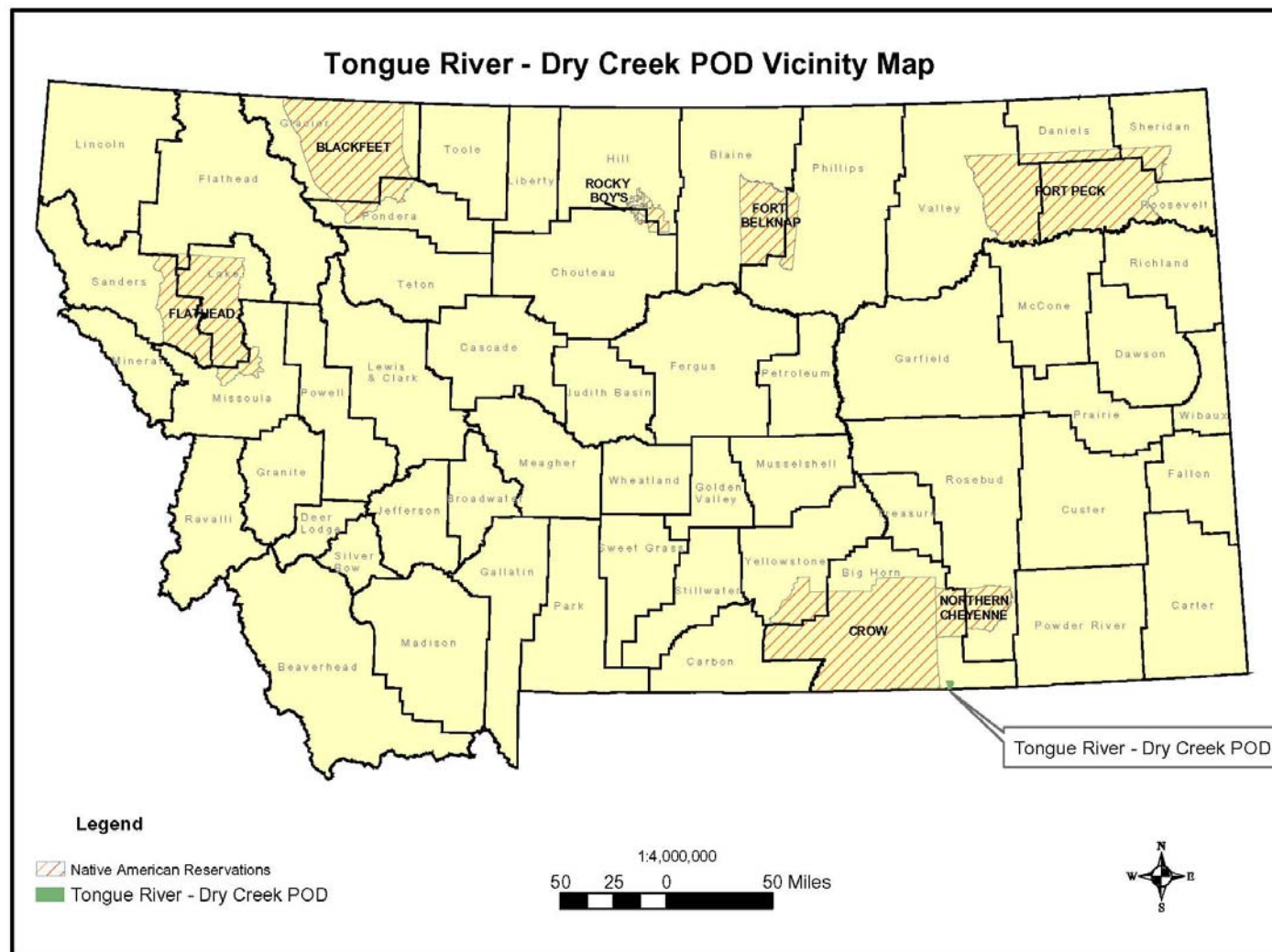
BLM must determine whether to:

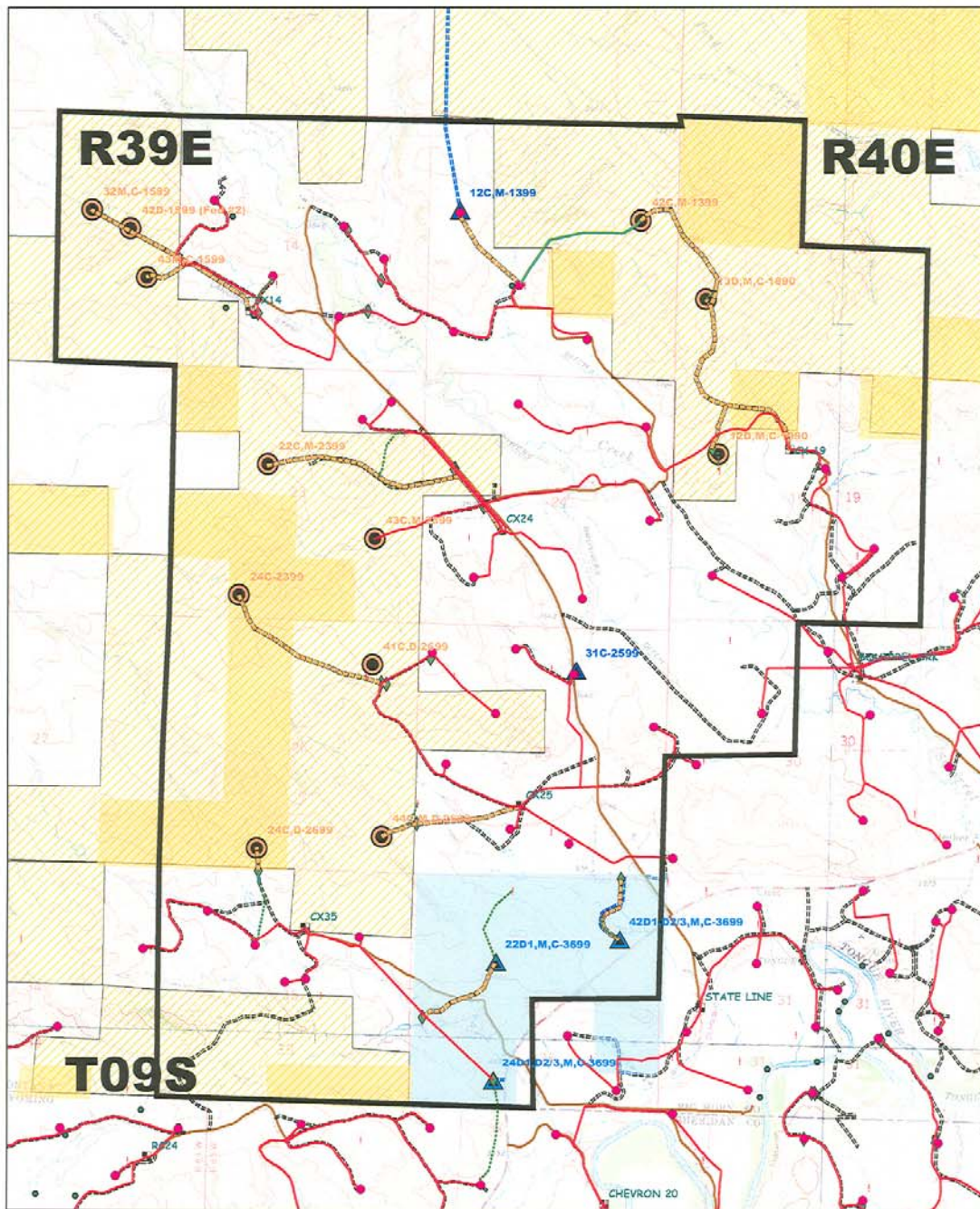
- approve the proposed action,
- approve individual federal components of the proposed action (as presented in Table 2.4-1), or

- modify the proposed action with mitigation measures and monitoring activities that may be necessary for federal actions in addition to those measures proposed by the operator.

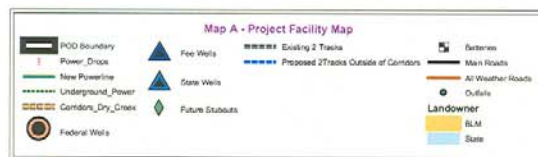
BLM will not make decisions on construction, well drilling, completion and production for any private and state wells, or their supporting infrastructure. The MDEQ, DNRC and MBOGC have jurisdiction by law (40 CFR 1508.15) over their individual components of this project. Their respective decisions have been incorporated into section 1.2.1, Other Relevant Documents.

The project map (1.3-2) shows the project boundary, existing and proposed wells, access roads, pipelines (water and gas), power lines, and the existing central gathering/metering/water processing facilities in the POD area.





Map A - Project Facility



Dry Creek Plan of Development  
August 25, 2004

By: Alan Telick

AgTerra/Dry Creek A.mxd

#### **1.4 ISSUE IDENTIFICATION**

Relevant issues were identified by technical staff based on issues highlighted during the 2003 MT FEIS, the 2004 Badger Hills POD EA and the 2004 Powder River Gas POD EA; from landowner, agency and tribal consultation; and site inspections in the project area. Relevant issues include the following:

- Air quality effects from CBNG development activities including drill rig emissions (exhaust emissions as well as dust generated by drilling the wells) and fugitive dust (construction activities as well as road dust) and compliance with all applicable air quality rules and standards, including ambient air quality standards
- Cumulative Impacts of this action when considered with past, present and reasonably foreseeable future actions
- Effects to cultural resources
- Effects to soils from using reserve pits and other drilling and construction activities
- Development of new two-track roads
- Drawdown of groundwater table and effects to springs and wells (pumping water out of coal seams)
- Habitat fragmentation and disturbance effects to wildlife habitat
- Potential for Methane Migration
- Reclamation of disturbed areas associated with construction activities
- Surface Water Quality

#### **1.5 FEDERAL, STATE AND LOCAL PERMITS OR REQUIRED CONSULTATION**

##### Montana Air Quality Permits

The Air Resources Management Bureau of the MDEQ has jurisdiction over sources of air pollution in the State of Montana. This includes making determinations as to whether a Montana Air Quality Permit (MAQP) would be required for the proposed activities. However, the Administrative Rules of Montana (ARM), Title 17, Chapter 8, Subchapter 7 – Permit, Construction and Operation of Air Contaminant Sources, specifically exempts certain activities from the requirement to obtain a MAQP. ARM 17.8.744(1)(b) exempts mobile emitting units, including motor vehicles, aircraft, and other such self-propelled vehicles from obtaining a MAQP. In addition, ARM 17.8.744(1)(i) exempts drilling rig stationary engines and turbines that do not have the potential to emit more than 100 tons per year of any regulated pollutant and that do not

operate in any single location for more than 12 months from obtaining a MAQP.

Specifically, the Air Resources Management Bureau must be consulted to make permit determinations regarding the use of air contaminant sources that would be used as part of the proposed CBNG exploration and development (drill rigs, emergency flares, etc.), as well as any future expansion of such development (installation of compressor engines/turbines). The Air Resources Management Bureau determined that a permit is not required for the proposed project. The current air quality permits granted for existing compressor sites (i.e., CX24 Battery (MAQP #3036), CX25 Battery (MAQP #3037), CX19 Battery (MAQP #3118), CX35 Battery (MAQP #3122), and CX14 Battery (MAQP #3141)) would be used for this project. The existing sales battery (i.e., Symons Central Compressor Station), MDEQ permit #3250-00 was issued final on July 16, 2003.

Based on information provided by Fidelity, the drill rig proposed to be used to drill the wells would utilize a 400-horsepower (hp) diesel engine. The MDEQ completed an emission inventory using the information provided by Fidelity and emission factors obtained from the United States Environmental Protection Agency's (EPA) Compilation of Air Pollutant Emission Factors, AP-42, Fifth Edition, Volume I. The MDEQ determined that a MAQP is not required for the Dry Creek Project because the potential to emit of the entire project is well below the MAQP threshold of 25 tons per year, except for oxides of nitrogen (NO<sub>x</sub>) emissions from the drill rig stationary engine. However, ARM 17.8.744(1)(i) exempts drill rigs that have the potential to emit less than 100 tons per year and that do not operate in the same location for more than 12 months from the need to obtain a MAQP. MDEQ's permit determination is very conservative because each activity (drilling and testing) was calculated based on 8,760 hours per year and the entire project will be completed within two months (1,440 hours). Technically, for an air quality permit determination, each hole would be considered a separate project; so, considering emissions from the entire project, as proposed to BLM, ensures that the analysis used to make the air quality permit determination is very conservative. The potential to emit of the proposed project is summarized in the following table:



### 1.5-1 Emission Inventory - Air Quality Permit Determination

Tons/Project							
<i>Emission Source</i>	<i>TSP</i>	<i>PM<sub>10</sub></i>	<i>PM<sub>2.5</sub></i>	<i>NO<sub>x</sub></i>	<i>VOC</i>	<i>CO</i>	<i>SO<sub>x</sub></i>
Drill Rig(s) – (Engine Emissions)	0.00	0.00	3.86	54.31	4.33	11.70	3.59
Drill Rig(s) – (Drilling Emissions)	0.31	0.31	0.31	0.00	0.00	0.00	0.00
Well Testing – (Gas Flaring)	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Total	0.31	0.31	4.17	54.31	4.33	11.70	3.59

Although MDEQ determined that a MAQP is not required for the proposed project, MDEQ would need to be contacted to determine whether a MAQP would be required for any future development, such as installing compressor engines, turbines, or any other sources of air contaminants that are outside the scope of the proposed project or that do not already have a valid MAQP. Several facilities that would be used to extract and transport the CBNG have already received MAQPs from MDEQ and are not part of the proposed project.

#### Montana Pollutant Discharge Permit (MPDES permit)

The MDEQ has been granted primacy from the United States Environmental Protection Agency (EPA) for issuing waste water discharge permits for such discharges into state waters. Fidelity's existing MPDES discharge permit into the Tongue River (MT0030457) would be used for this project. This permit allows for the discharge of up to 1,600 gallons per minute (gpm) of untreated CBNG water.

#### Federal 401 Certification

§401 of the Federal Clean Water Act (CWA) states that "Any applicant for a Federal license or permit to conduct any activity including, but not limited to, the construction or operation of facilities, which may result in any discharge into the navigable waters, shall provide the licensing or permitting agency a certification from the State in which the discharge originates or will originate... that any such discharge will comply with the applicable provisions of sections 301, 302, 303, 306, and 307 of this Act...If the State... fails or refuses to act on a request for certification, within a reasonable period of time (which shall not exceed one year) after receipt of such request, the certification requirements of this subsection shall be waived with respect to such Federal application. No license or permit shall be granted until the certification required by

this section has been obtained or has been waived as provided in the preceding sentence." (CWA §401.a.1)

According to Montana's 401 Certification procedures (ARM 17.30, Sub-Chapter 1), an application is deemed complete if the department has not made a determination within 30 days after receipt of the application or, subsequent to receipt of the initial application, within 30 days of receipt of materials submitted by the applicant that supplement the application (ARM 17.30.103.6). These procedures also specify that "If the department does not notify the applicant of a tentative determination within 30 days after the application is deemed to be complete, the department is deemed to have waived certification." (ARM 17.30.106.1).

On February 27, 2004, Fidelity sent a letter to the MDEQ requesting §401 Certification for the Dry Creek POD. The MDEQ responded to this with a deficiency letter on March 26, 2004. Fidelity responded to these deficiencies on June 3, 2004. Since that time, the 30 day time period for completeness review expired on July 3, 2004, and the 30 day time period for the tentative determination expired on August 4, 2004, without such a determination being made. As such, by rule (ARM 17.30.106.1), the MDEQ is deemed to have waived §401 certification for this project. This is consistent with typical 401 waiver procedures of the MDEQ for projects which require a MPDES permit (Reid, personnel communication, 11/30/04).

#### Storm Water Discharge Permit

The owner or operator of any activity that disturbs greater than one acre of land and has the potential to discharge storm water runoff to state waters, including ephemeral drainages or intermittent tributaries, must submit a Notice of Intent under the MPDES for coverage under the "General Permit for Storm water Discharges

*Associated with Construction Activity*” (“General Permit” – MTR100000). The General Permit requires that the owner or operator develop a Storm Water Pollution Prevention Plan (SWPPP), including Best Management Practices, maintenance, self-inspection and record keeping procedures in order to prevent significant sediment from entering state waters and causing a violation any state water quality standard. The NOI is effective upon receipt by the MDEQ provided that the NOI package is complete. The MDEQ may deny coverage under the General Permit if the project does not comply with terms and condition of the permit or based on the criteria of ARM 17.30.1341(4). The operator may terminate coverage under the General Permit after the site has achieved 70 percent of the pre-disturbance vegetative coverage. MDEQ provided confirmation to Fidelity Exploration & Production Company’s Notice of Intent and issued a storm water discharge permit (MTR100821) on March 10, 2004; and confirmation to a modification to the Notice of Intent on November 8, 2004.

#### MBOGC Earthen Pit or Pond Permit

MBOGC approves permits for the construction and operation of reservoirs/pits designed to store water produced in association with the CBNG wells. The Dry Creek proposal has one existing off-channel impoundment to be used in the water management plan. Fidelity is currently discharging water produced by private CBNG wells to this impoundment site, as necessary to satisfy landowner stock watering needs. It is proposed to receive federally produced water in the Dry Creek POD. The impoundment is located in a small topographically enclosed basin underlain by low-permeability clay materials; a natural playa basin. The impoundment is entirely located on private land, private mineral lease. BLM approval is required in accordance with Federal Onshore Oil and Gas Order No. 7. Fidelity has an MBOGC approved Application For Permit To Construct Or Operate An Earthen Pit Or Pond, dated April 3, 2001.

#### Surface Use Agreement

The operator must certify that an agreement with the private surface owners exists or, in lieu of an agreement, that the requirements of Federal Oil and Gas Onshore Order No. 1 have been met. Fidelity has provided certification of these agreements.

#### Water Well Mitigation Agreement

MBOGC Order 99-99 requires CBNG operators to offer water mitigation agreements to owners of water wells or natural springs within one mile of a producing CBNG field or within the area that the operator reasonably believes may be impacted by a CBNG production operation. Fidelity has provided certification of these agreements.

#### SHPO Consultation

BLM’s approval of the APDs and associated infrastructure developments is considered a Federal Undertaking as defined in Section 106 of the National Historic Preservation Act and its implementing regulations found in 36 CFR 800. BLM’s Cultural Resource Program in Montana operates under a National Programmatic Agreement with an implementing protocol with the Montana SHPO. A provision in the protocol provides for case by case review for controversial projects. BLM has consulted with the Montana SHPO under this provision. Consultation was initiated in July 2004. The SHPO concurred with the initial inventory strategy and survey results in a subsequent phone conversation. BLM has complied and reviewed the additional inventory information pertaining to the project since that time and provided this information to the SHPO in November 2004. BLM has determined that the proposed Dry Creek POD would have no effect to historic properties. In the letter BLM incorrectly made a finding of no adverse effect. This determination was based on a lack of direct impacts and effects to the eligible portions of historic properties. This information was communicated to the SHPO on November 4, 2004. The SHPO concurred with BLM’s determination that the Dry Creek POD would have no effect on historic properties on December 1, 2004. The SHPO concurrence was received by mail at the Miles City Field Office on December 13, 2004.

#### Tribal Consultation

On August 3, 2004, a letter requesting consultation was sent to the Northern Cheyenne tribal historic preservation officer, the Crow Cultural Commission, Fort Peck Tribes, Lower Brule Sioux Tribe, Rosebud Sioux Tribe, Pine Ridge Sioux, Cheyenne River Sioux, Eastern Shoshone Tribe, Standing Rock Sioux, Northern Arapahoe Tribe, Blackfeet Tribe, Ft. Belknap Community Council, Chippewa-Cree Tribe of the Rocky Boy’s Reservation, Montana Preservation Alliance, and National Trust for Historic Preservation. The only group that

requested a field tour of the project area was the Northern Cheyenne Tribe. The Northern Cheyenne's Tribal Historic Preservation Officer was provided copies of the preliminary cultural resource reports on August 13 2004, followed by copies of addendum reports during a field visit on September 2, 2004.

Previous to the August 3, 2004 comment letter, the Northern Cheyenne Tribe had raised the issue to the adequacy of the inventories for identifying Traditional Cultural Properties, in a meeting with BLM held in Miles City on October 20, 2003. In an attempt to resolve the issue, a field visit was conducted by the BLM and the Northern Cheyenne Tribal Historic Preservation Officer on September 2, 2004. The purpose of this visit was to determine if Traditional Cultural Properties were present in the Dry Creek POD area and to consider the Tribe's concerns with the proposed POD. No traditional cultural properties were identified. The results of the field visit are discussed further in chapter 3. The major recommendations by the Northern Cheyenne were to have a tribal monitor present during surface disturbing activities and to have

construction activities avoid disturbing rock cairns identified with several sites. These recommendations have been incorporated as conditions of approval and as mitigation measures.

#### FWS Consultation

BLM initiated Section 7 Consultation under the Endangered Species Act (50 CFR 402.14) with US Fish and Wildlife Service (FWS), by submitting a Biological Assessment on potential impacts of this proposed action (letter to FWS dated October 25, 2004, BLM files). The Biological Assessment documented determinations of May Affect, Likely to Adversely Affect for the threatened bald eagle, and May Affect, Not Likely to Adversely Affect determinations for the endangered black-footed ferret. FWS completed the consultation by returning a Biological Opinion and Concurrence addressing the BLM Biological Assessment (letter dated November 8, 2004), with recommendations for protecting and methods for mitigating effects to T/E species.